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ABSTRACT

The authors construct a model of psychosocial maturity which specifies measurable attitudes and dispositions in personal and social growth for secondary school students. Through integrating sociological and psychological views, the model outlines the following general dimensions of maturity relevant in all societies: (a) the capacity to function adequately on one's own; (b) the capacity to interact adequately with others; and (c) the capacity to contribute to social cohesion. The authors then define nine attributes judged pertinent to these capacities in this society. The final sections of the paper discuss problems in the measurement of psychosocial maturity, describe the form of an instrument presently being devised, and suggest research uses of the instrument. (Author/LAA)

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EDUCATING CHILDREN FOR ADULTHOOD: A CONCEPT OF PSYCHOSOCIAL MATURITY

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INTRODUCTORY STATEMENT

The Center for Social Organization of Schools has two primary objectives: to develop a scientific knowledge of how schools affect their students, and to use this knowledge to develop better school practices and organization.

The Center works through three programs to achieve its objectives. The Schools and Maturity program is studying the effects of school, family, and peer group experiences on the development of attitudes consistent with psychosocial maturity. The objectives are to formulate, assess, and research important educational goals other than traditional academic achievement. The School Organization program is currently concerned with authority-control structures, task structures, reward systems, and peer group processes in schools. The Careers and Curricula program bases its work upon a theory of career development. It has developed a self-administered vocational guidance device and a self-directed career program to promote vocational development and to foster satisfying curricular decisions for high school, college, and adult populations.

In an earlier report prepared by the Schools and Maturity program (CSOS Report No. 108), a concept of psychosocial maturity was outlined in an effort to provide an orderly framework for thinking about non-academic goals of education. This conceptualization of psychosocial maturity is revised and expanded in this paper.

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ABSTRACT

Schools below the college level traditionally have been preoccupied with only one outcome of education: growth in measurable cognitive skills. While there is at present a growing recognition of the school's actual and potential role in promoting personal and social growth, a convincing model of non-academic objectives is lacking, as is a tool for assessing children's progress toward non-academic objectives.

To this end, the authors construct a model of psychosocial maturity which specifies measurable attitudes and dispositions. The model of psychosocial maturity integrates sociological and psychological views of the person; that is, it takes into account the requirements of societies as well as the healthy development of individuals. The model outlines three general dimensions of maturity which are likely to be relevant in all societies. These are (a) the capacity to function adequately on one's own; (b) the capacity to interact adequately with others; and (c) the capacity to contribute to social cohesion. Nine attributes judged pertinent to these capacities in this society are then defined.

The final sections of the paper discuss problems in the measurement of psychosocial maturity, describe the form of an instrument presently being devised, and suggest research uses of the instrument.

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Introduction

Until recently, responsibility for the socialization of children and responsibility for teaching children academic skills have been located in two separate institutions. Traditionally, the family has been regarded as the central agent controlling the child's personal and social growth. The school has been considered to have a legitimate responsibility only for the child's cognitive growth. This division of labor is becoming blurred, as the school plays an increasingly important role in the student's non-academic development.

The enlarged scope of the school's impact is due in part to changes in the nature of family life that have diminished its power as an agent of socialization. The most important of these changes are the separation of work life from family life and the increased geographical mobility of the nuclear family. In earlier times, when the family was the basic unit of economic production, children spent far more time in the environment constituted by the family and the extended family, including the peer group created by family ties. These social arrangements reinforced the values and attitudes approved by the parents. The disappearance of the family as a unit of production, the tendency of work to be located away from the home, and the resulting geographical mobility of individual families have weakened the extended family network as the primary agent of the child's socialization. Decreased exposure to adults, in particular, represents a loss in potential socialization impact, since children have fewer opportunities to observe and imitate the variety of roles adults play.

Concommitant changes in the school experience have compounded the effects

of changes in family life. These changes indirectly diminish the role of the family in the socialization process and enhance that of the school. The first of these changes concerns the amount of time children spend in school. Briefly, they are in school longer than ever before: witness the growth of early education programs, the increased proportion of students who obtain secondary and post-secondary education and the nature of the school calendar. The school calendar once bent to realities in the life of the community, such as planting and harvesting seasons. These were times when children worked side by side with family members and other adults and learned skills and traits relevant to the world of adult work. In part because the family is no longer the unit of economic production, the school calendar today has considerable independence of such events and consequently shuts the child off from these experiences.[1] A major implication of children's being "in school," therefore, is that they are outside the reach of experiences in other sectors of life which promote socialization. The advent of schools which draw on a widely dispersed set of communities - in contrast to neighborhood-based schools - reinforces effects of the weakened extended family. That is, the "new" peers come from diverse life circumstances and hold diverse points of view. They are less likely to reinforce the socialization goals of the child's family and may even exert influences counter to these goals.

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[1] In contrast, the Russian child from junior high school onward regularly leaves school for a year to work, in order to develop work-related skills and attitudes and to establish understanding of and solidarity with older people in different occupational roles (Bronfenbrenner, 1970). In Danish rural schools twenty years ago, the school calendar was integrated into the work schedule of a rural economy. An eight-week vacation took place at the high-point of farming activities, attendance was on an every-other-day basis so that children could assist regularly with work, and school vacations often bore names that related to events in the economic sector, e.g., the "potato holiday."

Another change in school life is the age-grading of children -- a change from the one-room school in which children of various ages interacted with each other. Age-grading puts youngsters almost exclusively in the company of children their own age. As in the case of children's increasing isolation from adults, the absence of older children from the classroom means the absence of valuable models for the child's personal and social development. Separation from younger children may deprive youngsters of the opportunity to try out more "adult" roles vis à vis their juniors.

The combined effects of the family and the school changes noted above are that (1) the school has become a major arena for socialization, (2) the social environment of the school, especially that part formed by the immediate peers, has become the major source of models and reinforcements in the child's experience; and (3) consequently, the family has lost its former control over the socialization process.

The impact of the school -- and especially the school peers -- on children's attitudes, values and personal dispositions is attested to by considerable research evidence (e.g., Andersson, 1969; Coleman, 1961; Kandel and Lesser, 1972; Lacey, 1970; McDill and Coleman, 1965). It is surprising, therefore, that we typically ignore the non-academic socialization effects of schools in the assessment of educational outcomes and focus exclusively on the measurement of academic achievement. This bias is due partly to the existence of comprehensive standardized instruments to assess achievement and, in contrast, a dearth of similar instruments to assess personal and social growth. The result of our one-sided measurement strength in the area of academic achievement is that achievement has come to dominate thinking about the outcomes of education. In educational institutions, academic achievement

occupies the structural position that profit has in industry: curriculum is selected and arranged to enhance achievement; students may be grouped on the basis of current achievement test scores in order to maximize the effectiveness of instructional efforts to increase their subsequent scores; and teachers may be selected, hired and promoted in part on the basis of their known or expected performance in raising children's level of achievement. Outside the school, social and political issues have been framed in terms of academic achievement; for example, the issue of equal educational opportunity.

The current inattention to non-academic outcomes of education will only be altered by the creation of good measurement devices. These, of course, can not be created before the relevant non-academic outcomes have been specified. The first step in spotlighting nonacademic educational outcomes is to offer a compelling formulation of non-academic objectives for schools. Eventually, systematic assessment of various dimensions of personal and social growth could be undertaken, just as regular assessment of academic achievement is now carried out. Recent developments in statewide assessment programs indicate a growing interest in this possibility.[1,2,3] However, there is considerable

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[1] For example, several years ago the State Board of Education in Pennsylvania created a committee composed of citizens and professional educators to establish goals of a "quality" education. This committee took the position that "the goals of education having to do with the growth of youngsters as persons and as useful members of society are just as important as the goals of conventional academic achievement." (Campbell,et al., 1968, p.2, italics added). They further stated that any evaluation procedure which did not assess growth in these areas as well as academic growth would be deficient as a basis for determining whether the program of any school district was educationally adequate.

[2] To our knowledge, assessment of non-academic educational outcomes is now being carried out in twenty states and is being planned for the future in an additional fifteen states.

[3] An early proponent of the idea that schools had broad responsibilities for socialization was John Dewey. Similar views echo in the writings of Clausen (1963), Janowitz (1969) and Street (1969).

variety among states in the attributes that are assessed, the rationale behind the choice of attributes is often not well developed, and the interrelationships among attributes are sometimes not clearly worked out. Serious, widespread concern for socialization of non-academic objectives will probably be increased if we can formulate convincing analyses of desired non-academic socialization outcomes.

Background

What kind of non-academic attributes should schools promote and monitor? The list of values, attitudes, traits and interests is potentially very long. We begin by positing an answer that stresses growth in the direction of greater personal and social maturity. Ther term "maturity" has three virtues: it serves as a clear contrast to academic achievement, it gives us an opportunity to discuss non-academic growth from several disciplinary points of views, and it turns our attention to theoretically "ideal" outcomes or end-products of growth, development, and socialization. These outcomes should guide the selection of non-academic educational goals.

Biological concept

The term maturity is found in biological, sociological and psychological contexts.[1] In the biological context, maturity is the end-product of biological growth and is marked by the capacity for survival. Survival has implications at both the individual and the species levels. Regarding the former,

[1] The terms maturity and development will be used frequently throughout this paper. In general, we use maturity when referring to an ideal end-product of of development and socialization, and development when referring either to the process leading to maturity or to the assessed position of an individual at any point in time. Persons are characterized by varying degrees of development toward maturity; they do not "have" maturity.

a mature organism can maintain itself in the average expectable physical environment for the species. Regarding the latter, the mature organism can reproduce itself. Biological growth implies change over time, and consequently a dynamic model of maturity. The growing organism develops structures and functions over a span of time -- with increasing complexity, over a relatively longer period of time. Development to maturity in any but the simplest organisms involves a systematic passage through fixed stages of growth, wherein qualitative as well as quantitative changes occur. Qualitative changes in structure are sometimes very vivid, as when a butterfly larva becomes a mature butterfly. In other cases, changes may be subtle and their existence must be inferred, not directly observed. Changes in brain structure, for example, are inferred from certain changes in the child's cognitive functioning.

Biological growth is obviously too narrow a mechanism to account for human maturity. The specific criteria for survival are likewise incomplete. Adaptability to the modal physical environment is not of great importance in most advanced societies where technology takes the burden of survival off the individual. And the capacity for reproduction is not sufficient to guarantee species survival; it must be accompanied by a capacity to nurture and socialize the young.

Sociological concept

Some sociologists -- especially the functional school of Parsons (1951) and others -- define maturity in terms of attributes that lead to survival of the social system. A mature individual is one who can fulfill the requirements of an effectively functioning social system (Inkeles, 1968). Maturity is the end-product of socialization -- a term which encompasses all those processes by which the individual, born with behavior potentialities of a very wide range,

is led to confine his actual behavior to a much narrower range that conforms to the ways of a given society or subgroup. Socialization is future-oriented, in the sense that what is taught or shaped has clear implications for future performances (Elkin, 1960).

Analysis of Inkeles' (1968) formulation suggests that survival of the social system depends on (1) a viable economy; (2) conditions of reasonable predictability and trust; and (3) the existence of mechanisms which ensure the endurance of the social system over time. Mature individuals -- those who are fully socialized -- have information and skills that enable them to perform the kinds of work engaged in by members of the society. Mature individuals also have a common language, cognitive categories, values, role perceptions, and controls over emotional expression -- attributes which enhance the predictability of individuals vis-à-vis each other and the level of trust among them. Finally, mature individuals are competent to impart the language, values and work skills of the society to the young. Especially when later socialization by the peers reinforces early social learning, the society is likely to endure.

Sociologists are not typically concerned to formulate the process or outcomes of socialization in developmental terms. That is, they do not attempt to detail the rate and order in which the socialization of various attributes proceeds, or the relationships among these attributes.

Psychological concept

In a psychological context, maturity is often discussed interchangeably with mental health or social adjustment. It is typically considered the end-product of "natural growth trends" in personality (White, 1966) which will emerge in a reasonably benign familial and social environment.[1]

[1] Some writers, e.g. Rogers (1955), actually imply a spontaneous growth similar to biological maturation, rather than growth trends reinforced by socialization practices.

Table 1 summarizes a core of agreement among leading theorists on critical outcomes of personality development.[1] Because of its cross-sectional nature (comparing the concepts of several theorists), Table 1 obscures a central idea in theories of psychological development. This is the notion of an orderly chronological progress toward maturity, a notion which resembles in formal respects biological theories of growth. The best-known theories of personality development (e.g., Freud, Erikson) are "stage" theories. They emphasize a definite sequence of development -- the occurrence in a fixed order of a set of developmental tasks -- and the dependence of success at each stage of development on the adequate resolution of earlier stages.

In Erikson's formulation of psychosocial development, an orderly sequence of biological and closely associated psychological needs and impulses are met by varying social responses, and this interaction gives rise to end-products or resolutions which form the structure of personality. In a favorable course of development, the individual achieves, in order, a sense of basic trust, autonomy, initiative, industry, identity, intimacy, generativity and integrity.[2] While these dispositions or precursors of them exist in some form at almost all times, there is a time when each becomes "phase-specific"..."its psychosocial crisis is precipitated both by the individual's readiness and by society's pressure." (Erikson, 1959, p. 119) Because this scheme is so well-known, we will not describe it in further detail here.

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[1] In the first column are summary titles of seven positive outcomes of development which have been abstracted from the terms listed in the second column. In the last column are the names of the theories and with whom each term is associated. The Table is not exhaustive of the possibilities, but it does cover major themes in the psychological literature.

[2] Erikson does not dwell on the possibility that in societies other than our own, other outcomes may be the desired outcome of socialization efforts: e.g., mistrust instead of trust, guilt instead of initiative, isolation instead of intimacy. It is difficult, however, to imagine how a society could survive if individuals had too great a number of what are from our standpoint "negative" outcomes.

Table 1

Characteristics of Psychological Maturity

Characteristic	Related Terms	Source[a]
Self-acceptance	acceptance of self	Erikson
	emotional security	Allport
	freedom from egotism, inferiority, et al.	Saul
Independence	independence	Saul
	autonomy	Erikson
	self-sufficiency	Maslow
	initiative	Erikson
Social feeling	trust	Erikson
	acceptance of others	Erikson
	democratic character structure	Maslow
	warm relating to others	Allport
	accurately perceptive, responsive to others	White, Maslow, Allport
	intimacy	Erikson
Productivity	ability to work	Freud
	industry	Erikson
	task orientation	Erikson
	competence	White, Erikson
	skills for solving objective problems	Allport
	deepening of interests	White
	generativity	Erikson
Internalized Principles	ethical certainty	Maslow
	integrity	Erikson
	autonomous conscience	Saul
Humanistic values	humanizing of values	White
Identity	stable sense of identity	Erikson

[a]Pertinent literature is cited in the References.

Related theories of personality (e.g., Kohlberg, 1964; and Loevinger, 1968) also assume a fixed sequence of development. That is, if development occurs, it occurs in a fixed order. So, for example, in Loevinger's scheme of ego development, the child may attain a succession of levels, each marked by a characteristic type of impulse control and character development, interpersonal style, and conscious preoccupation. The stages are named: presocial, symbiotic, impulse-ridden, opportunistic, conformist, conscientious, autonomous, and integrated.

Erikson and Loevinger both postulate an ideal type of development (achievement of the highest or final stage) and recognize that achievement of the ideal is blocked by vicissitudes of earlier development. Both conceptualize development in terms of changes over time in the same general parameters of personality: impulse and impulse control, the quality of interpersonal relationships, and sublimations. Put otherwise, all stages or levels have the same structure and individuals can be discussed in terms of this structure regardless of their particular stage or level of development (and the particular "content" of these various stages).

Temporal concept

One other model of maturity -- not disciplinary in itself, but seemingly characteristic of medicine and especially of pediatrics -- can be identified as the "temporal" view. In this view, being mature is being like individuals older than oneself; age norms are typically central to this approach (e.g., Gessell and Ilg, 1949). Ghiselli's (undated) temporal definition of maturity is interesting for the many problems it raises. He says:

> "The term maturity ordinarily is taken to refer to that state where the processes of development are complete so that there is no further growth or improvement. However, the processes

> of change seldom stop completely...As a consequence, what is termed completeness of development is likely to be simply an arbitrary point in growth. Hence in practical terms it is more useful to think of maturity in relative terms. An individual who has the characteristics of a person older than himself is said to be mature, whereas one who has the characteristics of a younger person than himself is said to be immature. Therefore, maturity is usually taken to refer to the extent to which an individual is more like those who are older than he is, rather than those who are younger..." (Ghiselli, p.16)

This model does not contribute much to our conceptualization of psychosocial maturity. Because the temporal model is a-theoretical, it is over-inclusive: all characteristics associated with increasing age are potentially relevant to the determination of maturity. Carried to its extreme, Ghiselli's definition would lead to indexing maturity by arteriosclerosis. Although Ghiselli mentions the cessation of growth or improvement as criteria of maturity, the absence of a theoretical framework leads us to ask: growth of what type, serving what purposes? improvement of which characteristics, and by what criterion "improved?" In contrast, biological, sociological and psychological models of maturity are based on theories which specify potentially observable, ideal outcomes of development (e.g., reproduction, acquisition of language, attainment of the final stage in an explicit sequence of development). Temporal models confound one of several mechanisms that underly psychosocial maturing -- growing older -- with the outcome (maturity) itself.

A Concept of Psychosocial Maturity

We begin this section with a discussion of some general problems in conceptualizing psychosocial maturity. We will then spell out a concept of psychosocial maturity that integrates various theories and leads to the development of an instrument to assess psychosocial development.

A. General Problems of Conceptualization

Theoretical vs. atheoretical approaches

Current research on non-academic school outcomes is atheoretical. That is, no theory guides the selection of traits which are measured in assessments of non-academic outcomes. It is true that the researcher usually gives a brief explanation of his interest in particular traits, but an overall, organizing principle which integrates the traits under a common theoretical umbrella is likely to be lacking. Consequently, various (and potentially endless) lists of traits are enumerated, no one of which is more convincing than another. There is nothing obviously "wrong" with assessing, for example, achievement motivation, self-esteem, and citizenship, but there is also nothing obviously "right" or compelling about the choice of these variables and the omission of others. Furthermore, it is not at all clear how these variables may be expected to relate to each other.

The virtue of a theory-based list of traits is that the rationale for their choice is plain and the relationships among traits can be elaborated. Furthermore, the theoretical statement furnishes an explicit point of argument. One can accept, reject or doubt the cogency and pertinence of the argument.

A concept of psychosocial maturity is most likely to be meaningful if it begins with a theoretical analysis of ideal personal and social outcomes and supplements this analysis with an empirical survey of how the relevant behaviors, attitudes, and competencies do in fact develop over time. Outcomes that do not show any development over the major period of socialization and development do not belong in a model of psychosocial maturity (e.g., eye-color). And outcomes which show change over this period do not belong in the model if they are not relevant to the theoretical concept of maturity (e.g., ball-throwing skill).

Static vs. dynamic concepts of development

Static concepts of maturity are those which limit themselves to the description of an ideal outcome or end-product. Sociological models of maturity, which focus on desired outcomes of socialization (e.g., acquisition of the common language, internalization of norms and values) are examples of this type. In contrast, dynamic conceptualizations delineate steps in the attainment of the end-product. Examples are the sequential schemes of Erikson and Loevinger. Each type of concept has its pitfalls.

Static or end-product conceptualizations of maturity may inspire very misleading activities. That is, they may lead to the evaluation and comparison of individuals in regard to attributes that are not relevant to their development at the particular point in time. In particular, individuals may be classified with respect to attributes they have not yet acquired. For example, consider a static model of butterfly maturity that uses wing-size as a criterion, and results in evaluating butterfly larvae in terms of this criterion; or a static model of psychosocial maturity which includes the acquisition of ego-identity, and results in the evaluation and comparison of seven-year-olds along this dimension. A related, and troublesome, characteristic of static models is that they tend to assume that the meaning, significance, or expression of attributes is invariant over time (from one age period to another).

Dynamic theories of maturity may lead to an over-emphasis on change. If a dynamic conceptualization is not based on a theory, undue and equal attention may be accorded to all changes that take place. This is the pitfall of the temporal model of maturity, as described earlier; because outcomes of aging are not evaluated in terms of ideal end-states, the consequence is an over-inclusive, undifferentiated documentation of change. Another limitation of dynamic theories seems to be most characteristic of those theories which do

postulate a desired end-state. Such theories -- e.g., Erikson's or Loevinger's -- conceptualize development as a sequence of increasingly "mature" levels of organization; whereas, in fact, the true course of development may reflect quite a few ups and downs.

A concept of psychosocial maturity should have both static and dynamic characteristics. It should begin with a theoretical analysis of desired end-products, and as a result of systematic empirical research, lead to a conceptual scheme which describes the observed course of growth leading to these end-products. The resulting model might well incorporate discontinuities and regressions into the scheme of development, rather than present a monotonic picture of growth.

Classical vs. differential views of personality structure

Static and dynamic models of maturity tend to correspond to two different views of the structure of personality. In the classical view, individuals pass through a series of qualitatively different levels of structural organization. The sequence of progression through stages is invariant. This type of conceptualization is clearly dynamic in type and has been discussed at some length already (viz. Erikson and Loevinger, pp. 8,10). Measurement calls for nominal classifications. The individual's level of development is determined from the central tendency of a set of responses. Structural development, or progression to the next level, depends on a shift in central tendency and in the distribution of responses among levels.[1]

The differential approach to personality is not concerned with a universal sequence of development. Personality structure is defined by traits

[1] The definition of classical and differential view of personality structure is drawn from Emmerich's (1968) comprehensive analysis of structural concepts.

(dimensions) that group like individuals with each other and differentiate them from others. Measurement is of attributes, rather than "levels," and yields ordinal data. Personality is assessed in terms of quantities of various attributes (scores on scales or factors).[1] In general, the differential approach is philosophically more directed toward the study of consistency than to the study of change. Therefore, this view is closer to static than dynamic models of personality. Changes in personality structure are inferred from changes in the factor structure, factor loadings and interrelations among factors over time; and by changes in the individual's rank within a group, on one or more attributes, over time.

For a concept of psychosocial maturity, a combination of both approaches might be fruitful. A differential approach might logically precede and form the basis for identification of stages (if they exist). That is, a differential analysis could identify empirically which dimensions of personality develop simultaneously, and how various dimensions may combine with each other to form distinct stages. Loevinger (1968) remarks that measurement techniques appropriate to the classical view are not advanced. This combined approach would capitalize on the sophisticated techniques associated with the differential view without forsaking goals of the classical approach.

General vs. specific models of development

This issue concerns the appropriate level of abstraction for a concept of psychosocial maturity.

An abstract or general model of psychosocial maturity has several virtues. First, it can provide a conceptual framework for subsequent specificity (see

[1] There is a tendency to regard having a higher score on a positive attribute as better than having a lower score. Whether "more" is "better" depends on the criterion or ideal condition one has in mind. Validity studies of a scale might indicate that there are optimal score intervals, and that there can be "too much of a good thing."

our discussion of atheoretical vs. theoretical approaches. Second, a concept which is derived from some general theory of what is required of "mature" human beings forces one to think in terms that go beyond one's immediate cultural context. This may not only liberate thought, but produce a concept of broad -- possibly cross-cultural -- utility. A concept that is too abstract, however, will be useless. A model must also concern itself with the set of attributes that people in a particular culture should possess at a given point in time. In this sense, a useful model must be ethnocentric.

A concept of psychosocial maturity should deal primarily with the requirements that societies universally make of individuals and subsequently specify attributes of individuals that enable them to meet these requirements in a particular society. The resulting model should be parsimonious. The objective is to outline the nature of psychosocial maturity, and not to construct an exhaustive scheme which puts psychosocial development in a strait-jacket.

Socialization vs. psychological development

An attempt to formulate a theory of psychosocial maturity must finally confront these questions: are attributes of individuals which are useful to society also optimal from the perspective of the individual's growth in his own right? are societal and psychological views of the person identical?

Socialization is not necessarily at odds with psychological development, but the potential for conflict is present. As Inkeles (1968) and Fromm (1949) point out, socialization serves the purposes of the society. It creates the type of individuals that are needed to make the society function smoothly and effectively. Psychological development, on the other hand, refers to the growth of constructive attitudes toward the self, others, and the

social group.[1] This ideal course of growth is presumed to occur naturally in a benign social environment. The notions of "natural," "constructive," and "benign" are of course determined by the value framework in which the developmental theory was generated, but these notions are somewhat freer of the immediate social context than are theories of socialization. This is due partly to the fact that developmental theories are located in the individual-oriented discipline of psychology, rather than in the society-oriented discipline of sociology.

A concept of psychosocial maturity should specify socialization goals that maximize individuals' psychological development. That is, the concept should take into account not only what society requires individuals to become, but what individuals in general should become.

B. An Integrative Concept

Here we shall describe the content of a concept of psychosocial maturity which integrates various disciplinary points of view. To summarize briefly: the biological concept of maturity is organized around the physical survival of the organism and the species. This end-product is a consequence of the physical development of the organism which is due to maturation. The sociological model of maturity focuses on factors which promote the survival of the social system. This end-product depends mainly on the internalization of norms and values, accomplished by means of socialization. The psychological model of maturity is concerned with the creation (and subsequent survival) of psychological "wholeness" in individuals, i.e., the completed development of persons as both private and social beings. This is achieved via biological

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[1] Socialization of individuals for effective functioning in certain societies might make development of certain kinds irrelevant or even dangerous. Consider, for example, the place of autonomy, identity, and integrity in a repressive, authoritarian society.

maturation, natural growth trends in personality, and constructive socialization experiences.

We propose an integrative concept of psychosocial maturity that rests on three general or "universal" categories. We shall describe these categories, which represent general types of demands made by all societies on individuals, and then turn to culture-specific attributes of individuals that enable them to meet these demands.

General categories of maturity

The first general demand on mature individuals is that they have the capacity to function adequately on their own. All societies require adults to be self-sufficient in some degree; and all societies expect children to become more self-sufficient during the period of their growth, development, and socialization. No society except one organized around the goal of custodial care can function adequately, or ultimately survive, if individual members cannot take responsibility for and contribute to their own survival.

In the biological framework, the individual's maturity is judged on the basis of his biological and physiological capacity to sustain life and survive in the average expectable physical environment. In the psychological framework, the emphasis is on more complex forms of self-sufficiency. Nearly all of Erikson's stages of development touch in some way on the issue of increasing self-sufficiency -- especially the stages culminating in autonomy, initiative, and industry. Loevinger's model of ego development can be seen as a continuum of increasing capacity to determine one's own path in life, consistent with one's self-construct. The appropriateness of this characterization of Loevinger's scheme is suggested by the fact that one of the lowest stages of development is called "symbiotic," the antithesis of self-sufficiency, while the two

highest stages are called "autonomous" and "integrated." In the sociological framework there is no explicit concern with self-sufficiency. This may be due to the preoccupation of theories of society with the interdependence of individuals -- this interdependence forming, in fact, the basis of society.

The second general demand on mature individuals is that they have the capacity to interact adequately with others. In all societies, relationships cut across many domains: the family, the economy, the social, political and religious life of the collective. As noted earlier, individuals are born with a great variety of behavior potentialities, a situation which if left uncontrolled would create a chaotic social environment. However, certain characteristics of society -- for example, its structural features, myths, values, and cognitive system -- and certain characteristics of individuals -- especially the consistency of their behavior -- simplify and stabilize the environment. Put otherwise, there are forces in both society and the individual which make the social environment predictable. Just as the biological process of natural selection favors those organisms that are adapted to life in the average expectable physical environment, society favors individuals who can comprehend and function within limits consistent with the modal social environment. Such individuals are to some extent predictable by others; the presence of some predictability creates a modicum of trust among individuals.

In a general sense, the capacity to interact adequately with others is consistent with the biological model of maturity. In many species, the survival of the individual requires some form of social interaction or cooperation (as in species where the young are incapable of functioning adequately on their own for a period after birth; and in species that form families or herds). Likewise, reproduction of the species and adequate subsequent care

of the young may require social skills as well as biological readiness (Harlow & Harlow, 1966). In the psychological framework, the capacity to interact adequately with others is explicit in many formulations of personality development (see Table 1, "social feeling"). Erikson's scheme of development treats this capacity in the stages of "trust," "identity," "intimacy," and "generativity." These stages all deal in some measure, although sometimes indirectly, with the person's stability and trust. In Loevinger's formulation, individuals at the lower stages of ego development, ending with the "opportunistic" level (see p. 10) would tend to be less predictable, trustworthy, and trusting than those at the higher stages, from "conformist" on. In the sociological framework, the capacity for adequate interactions among people permits the day-to-day business of the society to be carried out. The stability of daily life to some extent works in favor of continuance of the society over time. This topic is dealt with more extensively under the next category.

The third general demand on mature individuals is the capacity to contribute to social cohension (and thereby, societal survival). Social cohesion is sometimes threatened by outside factors (e.g., the hostile intentions of other groups; natural disasters) and often by internal factors (e.g., conflict among subgroups of the society). Societies therefore need individuals who can recognize threats to social cohesion and who will participate in efforts to restore solidarity.

In the biological framework, behavior that promotes social cohesion is not a criterion of maturity. This omission is understandable. First, many species do not form lasting social groups, so this would be an irrelevant standard of maturity. Second and most important, it is very difficult to identify any physical structures or functions that underly such behavior. In

the framework of traditional psychological theories of development, the capacity for concern with social entities larger than the self or the immediate family is also not widely considered. It is, however, a hallmark of one stage in Erikson's model of development -- that stage culminating in "generativity." Social involvement, on the other hand, is a central feature of existential-psychological views of healthy personality development (Binswanger, 1963) and is important in the thinking of Allport (1963), Fromm (1947), Keniston (1960), and Maslow (1954).[1] In the sociological framework, the capacity for contributing to social cohesion is not dealt with explicitly, perhaps because the internalization of norms and values is assumed to lead to this outcome automatically.

In different societies, the optimum balance among the capacities for self-maintenance, interpersonal effectiveness, and enhancement of social cohesion will differ -- that is different "amounts" of adequacy will be required of individuals in these areas of functioning. But it seems reasonable to propose that in all societies, some minimum of performance on these dimensions is expected of "mature," "socialized," or "developed" individuals.

Specific attributes of maturity

We turn now to a specification of attributes which serve as indicators of the three general capacities in this society. Our objective is to outline a minimum, not an exhaustive, set of attributes. The attributes described in

[1] The justification for social involvement, however, is not made in terms of what society needs, but in terms of what is necessary for the individual to maintain mental health or a sense of well-being.

the following pages were selected with two criteria in mind: (1) congruence with present or likely future demands the society makes on individuals; and (2) congruence with psychological theories of healthy development. Thus, the model of maturity described below and presented in Table 2 combines goals of socialization (what an individual in the society must become) with goals of development (what an individual in general should become).

1. Capacity fo function adequately on one's own

a. Self-reliance

Self-reliance is perhaps the most basic disposition that underlies adequate individual functioning. Self-reliance may be viewed as having three related manifestations:

1. absence of excessive dependence on others
2. sense of control over one's life
3. initiative

The absence of excessive need for reliance on others seems to involve trust in one's own capacity to judge and a reasonable willingness to take risks and make mistakes. An individual with this trait can act on his own when no others are available to depend on, when no one available has resources greater than his own, and when he has reasonably adequate resources for action within himself. The excessive need to validate one's decisions or opinions against those of others puts the individual at a disadvantage: he must postpone action; tolerate uncertainty and unclarity until enough "others" have given their approval; and spend much time weighing and balancing conflicting opinions.

Table 2

Model of Psychosocial Maturity

Individual Adequacy

- Self-reliance
- Work Orientation
- Identity

Interpersonal Adequacy

- Communication Skills
- Enlightened Trust
- Knowledge of Major Roles

Social Adequacy

- Social Commitment
- Openness to Socio-political Change
- Tolerance of Individual and Cultural Differences

A sense of control is the feeling that one's own actions play a major role in what comes about, and that, within limits, one can bend the environment to serve one's own interests.[1] Thus, the person with a sense of control feels that his work-performance (not his employer's whim) will determine his occupational advancement. The sense of control no doubt is both a cause and a by-product of functioning effectively, and in either case seems a reasonable indicator of the capacity for self-maintenance.

Initiative is closely linked to both the sense of control and the absence of excessive dependence on others. Initiative describes an action-orientation -- the disposition to take responsibility for action in a situation and forego conventional role expectations when the situation demands it. The significance of initiative for self-maintenance is that there are many life situations in which the person is expected to take action in his own hands or will best promote his own interests if he can do so.

The term "self-reliance" has been chosen to represent this syndrome in an effort to avoid excess meanings that accrue to the more commonly used term, "independence." Independence is typically viewed as a desirable trait, somewhat regardless of circumstance, and in polar contrast to dependence. (According to the 1966 edition of the American College Dictionary, independent means inter alia, "not dependent" and "possessing a competency." "Dependent," obviously, is not considered a competency.) This bias seems consistent with a long-standing American philosophy in which self-determination, self-reliance or, more dramatically, rugged individualism are supremely admired qualities of a person. Recent theory and research, however, suggest a reformulation of independence and dependence, which are conceived as complementary, not mutually

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[1] This variable has been studied extensively by Rotter (1966) and Crandall et al. (1965).

exclusive attributes that develop from the same origins.[1, 2]

b. Identity

Individuals who know who they are, what they believe, what they want -- and who have a sense of their worth as persons -- will be better able to function adequately on their own than individuals without a clear and stable identity.

The term "identity" is associated with revisionists of orthodox psychoanalysis, such as Erikson.[3] Optimal identity is achieved sometime in late adolescence. It is achieved by a complex process, in which attitudes, values, abilities, and self-evaluations are brought together in light of the new social roles that are opening to the young adult. The danger of adolescence, says Erikson, is role diffusion, a failure to "get it all together." This failure has been vividly described in the case of the character Biff from Death of a Salesman: "I just can't take hold, mom, I can't take hold of some kind of a life" (Miller, 1949).

In selecting attributes of identity for the study of school-age youngsters, it is necessary to bear in mind that they are in the process of forming an identity, but have not yet attained it. Consequently, we propose the following

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[1] Bowlby (1973), drawing on the work of Harlow (1958), Ainsworth (1969) and others, suggests replacing the term independence with the concept of self-reliance, and the term dependence with the concepts of attachment, trust, and reliance on others. He proposes that "well-adapted personalities show a...balance of initiative and self-reliance ... a capacity both to seek help and to make use of help when occasion demands." He maintains that attachment to an accessible, trustworthy and supportive parent-figure is the basis for the growth of both attributes. (Subsequent experiences in relation to other persons also are important.) Such attachments form a "secure base" from which to strike out on one's own and from which to acknowledge and express the need for help from others.

[2] The capacity to seek and use help is discussed elsewhere in our model.

[3] The most frequent referents of the concept are: clarity and stability of self-concept; self-esteem (especially with respect to one's character and values); an internalized, personal set of values; clarity of life goals; achievement of meaningful life goals; a feeling of continuity across the past, present, and future (even though change has occurred), and integration among various "sectors" of the personality (e.g., impulses are part of consciousness, plans fit values, etc.).

components of identity:

1. increasing clarity of self-concept[1]
2. consideration of life goals[2]
3. internalizing of values[3]
4. self-esteem

Identity is likely to be a source of self-reliance, and consequently, quite strongly related to the disposition outlined above. (It is difficult to imagine a self-reliant individual with a weak identity, or conversely an individual with a strong identity who is not self-reliant; i.e., depends excessively on others, has little sense of personal control, and lacks initiative.)

Although identity has been described as a source of adequate individual functioning, it is also clear that it will promote effective interpersonal functioning. This is so because an individual with a stable and valued sense of self will behave consistently -- both across situations and over time -- and convey a coherent, consistent image of himself to others. Individuals find it easier to interact with a person who is predictable.

c. Work orientation

Another indicator of the capacity for adequate individual functioning is the existence in the individual of a work orientation. While the structural significance of this attribute, and the mode of its expression, change from childhood through adulthood and old age, a work orientation is relevant to self maintenance throughout the lifespan.

We shall use the term work orientation to describe the following traits of an individual:

1. general task or work skills
2. standards of competent task performance
3. capacity to experience pleasure in work

[1,2,3] The process of clarifying the self concept is developmentally more appropriate than achievement of stability; the attempt to define life goals is more appropriate than utter certainty about such goals; and similarly, progress in internalizing values is a more realistic expectation than completion of the process.

Work orientation plays a role in three aspects of adequate individual functioning. First, all individuals must conduct the daily informal work of living. Second, all individuals must perform in formal work situations. In most advanced societies, including this one, work is the major vehicle through which the adult attains (and maintains) self-sufficiency. Even the child has an analogous situation to a formal work situation. The setting is school, and the child's work is to learn. The child is expected to learn cognitive skills, such as reading and computation, that are important for informal self-maintenance and for subsequent functioning in a formal occupation. The child is also expected to learn a variety of general skills that contribute to the performance of work of all kinds, and regardless of one's age. These skills include persistence, resistance to distraction, re-striving upon encountering obstacles, and the ability to see tasks through to completion.

Having a work orientation implies that the individual applies these "general skills" in the service of a need to perform work competently. Competence, in a work-oriented person, brings pleasure; occasionally so does the routine exercise of general work skills. The terms "competence motivation" and "effectance motive" have been coined in this regard (White, 1959). Psychological theory and research suggest that a work orientation contributes to adequate individual functioning by preserving the individual's mental health. In Freud's conception, work stabilizes the individual and turns energy into channels where socially approved satisfaction can be obtained.

While work orientation has been described as a facet of adequate individual functioning, it is also relevant in some degree to the other major categories of maturity. In situations where "teamwork" is required, work-orientation may be a factor in forming and maintaining adequate interpersonal relationships. And since members of a society are commonly dependent on one another economically, an individual's work orientation also contributes in some measure to social cohesion.

2. Capacity to interact adequately with others

Indicators of this capacity are attributes that contribute to an individual's stability, predictability, and trust in others. We propose that commun-

ication skills, enlightened trust, and knowledge of major roles contribute to effective interpersonal functioning in this society.

a. Communication skills

To be effective in interpersonal relationships the individual must be able to convey facts, opinions, feelings, ideas and wishes so that they can be understood; and conversely, he must be able to understand the communications of others. The ability to communicate involves:

1. skill in "sending" or encoding verbal and non-verbal messages
2. skill in "receiving" or decoding verbal and non-verbal messages
3. empathy

Skill in encoding and decoding messages requires not only skill in the spoken and written word -- the prime means of communication in this culture -- but in other means of expression, including intonation, inflection, and gestures of the face, hands, and whole body (posture). Verbal messages are particularly, but not exclusively, suited to conveying information; non-verbal messages are particularly, but not exclusively, suited to conveying affect.

It has been suggested by Mead (1934), Piaget (1926), Flavell (1968) and Hogan and Henley (1970) among others that empathy contributes to skill in communication. Conceptualizing empathy as role-taking ability, they argue that empathy enables the speaker to anticipate the questions and informational demands of the listener and thereby to construct and transmit a message more effectively. Conversely, the more completely the listener is able to assume the role of the speaker, the better he will understand the speaker's message.[1] We suggest that empathy also sensitizes the individual to the affective demands of the communicators. Consistent with a role-taking interpretation, empathy enables the individual to recognize a broad range of feelings in others and in himself.[2]

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[1] A recent empirical investigation of the "empathy-effective communication" hypothesis demonstrated that individuals with high scores on a verbal test of empathy were considerably more able than low-scorers to encode messages in a way that others could understand, and somewhat more able to decode messages sent by others (Hogan and Henley, 1970).

[2] The empathic person rejects no feeling or impulse as alien to his own actual or possible experience. In the words of Montaigne, "I am a man; therefore nothing that is human is foreign to me."

b. Enlightened trust

In the absence of complete predictability the individual must learn who, and under what conditions, to trust. According to Rotter (1971), "the entire fabric of our day-to-day living, of our social order, rests on trust -- buying gasoline, paying taxes, going to the dentist, flying to a convention -- almost all our decisions involve trusting someone else." The more complex the society, the greater the role played by trust in interpersonal relationships. This is because many transactions occur between strangers and because we must rely on others as sources of information. (The first-hand acquisition of information becomes increasingly difficult and time-consuming in a complex society.) Trust consistent with psychosocial maturity has these characteristics:

1. a general belief that it is acceptable to rely or depend on others
2. rejection of simplistic views of the "goodness" or "badness" of human nature
3. recognition of individual and situational factors that limit trustworthiness

The capacity to rely on others when necessary is perhaps the most fundamental aspect of trust. The justification of this trait was given in the preceding paragraph and was mentioned earlier (pp. 24-25) as an adaptive complement of self-reliance. However, simplistic black-and-white thinking in matters of trust can lead to either naive over-trust -- "all people are good" -- or paranoid under-trust -- "all people are bad." In our view, the psychosocially mature person, who interacts effectively with people, rejects such views and develops an "enlightened" trust based on realistic assessment of individual and situational factors that might curtail trust. Individual factors that are relevant to a person's trustworthiness -- and therefore to one's degree of trust -- include, among others, his past trustworthiness and the interests at stake in the present transaction. The question of "interest" can be viewed as a question of the personal cost and benefits to the individual of being trustworthy. Situational factors that constrain a person's behavior include role definitions of acceptable behavior, the likelihood that an impropriety

will be discovered, and the social rewards and punishments attendant upon meeting or violating a trust.[1] The effectively functioning person is capable of trust but knows that complete trust is not always warranted. He "sizes things up" and makes an enlightened decision about when, whom, and how much to trust.[2]

c. Knowledge of roles

Knowledge of social norms concerning role performance is likely to stabalize social relationships and to render them more predictable than they otherwise would be.

Knowledge of roles involves:

1. awareness of obligations inherent in current definitions of major roles
2. awareness of priorities that govern the resolution of role conflicts

In a simple society, the structure of role relationships and the contents of the roles are relatively fixed, but in a complex, fluid society such as this one, the interlocking of roles with one another and the obligations that inhere in roles are in flux and may vary from one social milieu to another. Nonetheless, there are roles that require similar behavior of individuals regardless of their sub-group membership.

A child necessarily has a less complex role set than that of an adult; yet one of the primary objectives of socialization is to teach children role management. The child's more private roles entail relationships within the family and among friends; his more public roles involve the larger peer group, the school, his after-school jobs, and his dealings with merchants. Adequate role performance requires that the individual learn to discharge a variety of roles himself and to interact with others in a variety of roles; that is, he must learn what individuals occupying a variety of roles can, and cannot, legitimately expect of each other. Since the obligations entailed by various

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[1] Some examples: A person who stands to lose a valued "reward," such as continuation in a job, by telling the truth about an absence is more likely to lie than a person whose absence creates no risk. A doctor can mitigate the truth about a laboratory test a patient has taken; a teacher, in general, cannot mitigate the truth about a test his student has taken.

[2] The best known research on trust (Rotter, 1971) has led to the development of a scale that assesses what we would consider "naive" trust. Respondents get the maximum number of points for answering questions in the direction of unmitigated trust.

roles are sometimes incompatible when the roles are occupied by a single person, the individual must also learn how to resolve conflicts of interest and apportion his resources (e.g., time, energy) among his various role commitments.

Although the capacity to meet role requirements clearly is relevant to adequate interpersonal functioning, a strong case can also be made for the importance of role-knowledge to adequate functioning of the individual on the social system level. A common base of role perceptions enhances social cohesion.

3. Capacity to contribute to social cohesion

In the sociological model of maturity, mature individuals are ones who enhance the integration of a larger social system.

Certain of the dispositions outlined in our analyses of effective individual and interpersonal functioning are significant also at the social system level: for example, work orientation, enlightened trust, communication skills, and knowledge of major roles. Here we are concerned with dispositions that have their most vivid effect on cohesion within the social system; consequently these dispositions also are pertinent to the society's chances for long-term survival.

a. Social commitment

Social cohesion depends to a considerable extent on the existence of a social system which meets the needs of people and which promises better resolutions of problems of living (safety, health, production, etc.) than individuals on their own could attain. Concern with the welfare, present and future, of the group is the issue underlying social commitment. Dimensions of this disposition include:

1. feelings of "community" with others
2. willingness to modify or relinquish personal goals in the interest of social goals
3. readiness to form alliances with others to promote social goals
4. investment in long-term social goals

Social commitment begins with a sense of community or identification with various sets of "others." These others can be located on a continuum of increasing abstractness, or a continuum of increasing remoteness from self: for example, the family and extended kin group; the immediate work group; neighbors; the community; others in the same occupational category; the county; and finally, the nation. The individual is a member of all these social sets, but in reality usually feels more identification with some sets than others.

Conflicts occur between various social goals -- those which benefit primarily certain groups of individuals -- and between social and personal goals -- the latter, ones which reward primarily the individual and his "close others." In point of fact, most goals are not "pure" examples of either type, and pursuit of even the most "social" goal brings some direct or indirect rewards to the individual: for example, prestige, good conscience, or feelings of competence and curiosity-satisfaction attendant upon solving problems. The way in which individuals assign priorities to competing "social" goals reflects their major subgroup identifications. The capacity of individuals to modify their more personal goals when these come into conflict with pressing social needs indicates the general strength of their social commitment.

The attainment of important social goals which are likely to increase the well-being of large groups of others -- and thereby enhance social cohesion -- is almost never brought about by the action of an individual on his own. The mature individual comprehends the need to make alliances and bargains with others who have similar interests -- or different, but not strongly competing interests -- in order to work effectively toward social goals.

Finally, the mature individual recognizes that the social system may have problems that will not yield readily to solution. Survival of the social system also depends, therefore, on the capacity of individuals to work for objectives that may not bring substantial social or personal benefits for a long period of time (possibly, not within their own lifetime). These long-term investments of effort are investments in the survival of the society.

b. Openness to socio-political change

Social and political change are often sparked by the disaffection of large groups within the society. After an initial period of social disequilibrium caused by the changes themselves, these changes ideally lead to greater equilibrium than was present before. In some societies, such as ours, social and political change are also products of the political philosophy and technical orientation.[1] Consequently, mature individuals will have an openness to social and political change consisting of:

1. general openness to change
2. recognition of the costs of the status quo
3. recognition of the costs of change

A general disposition to be open to change is probably basic to attitudes toward socio-political change. Since children, especially young ones, have a limited understanding of social and political realities, the general disposition may be the best available indicator of later attitudes.

If the status quo places intolerable social and political conditions on a critical mass of the people, the cost of preserving the status quo may be a disruption of the social system. For example, preserving inequality of opportunity between blacks and whites, or men and women, would have created a situation of explosive conflict that threatened the stability (and productivity) of the society. On the other hand, change also entails costs. Social and political changes usually bring gain to some at a loss to others. Social changes which are the explicit goal of public policy are especially likely to be of this type. Their purpose is to redistribute resources, a process in which the resources held by some are reduced while those held by others are increased.[2] So, for example, the mature person comprehends that certain changes which correct prior inequalities in this society will mean loss of advantages previously held by whites and men, and will cause social disruption in their own right.

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[1] Our political philosophy includes the idea that laws exist to serve social purposes. Social purposes change over time, and laws are therefore mutable.

[2] At the most primitive level of functioning, individuals can only be expected to support changes from which they themselves are likely to gain. However, psychosocially mature individuals can take concern for the overall health and stability of the society (viz, social commitment).

c. Tolerance of individual and cultural differences

In a society composed of individuals of heterogeneous national origins and varied customs and beliefs, tolerance of individual and cultural differences contributes to social cohesion.[1] Tolerance involves:

1. willingness to interact with individuals and groups who differ from the norm
2. sensitivity to the rights of individuals and groups who differ from the norm
3. awareness of the costs and benefits of tolerance

The goals of social cohesion require that individuals be willing to come face to face with each other in work relationships, informal social relationships, and in common efforts to secure social goals important across subgroup lines. The psychosocially mature person does not rule out such contacts with people because they differ from him as individuals or in their subgroup membership.

In a pluralistic democracy, where every legitimate group is guaranteed representation, the most important object of tolerance is the group, not the individual.[2] Tolerance means the acknowledgement that legitimate groups, defined by race, ethnicity, and occupational affiliation, among other characteristics, have a right to exist and pursue their interests. The actual facts of life have, of course, been somewhat at variance with this stance, but some of the most vigorous social and political movements of the day are attempting to bridge the gap.

The costs of intolerance -- of efforts to level differences among people -- may be a deficit in individuals' well-being and social participation, and loss of a fertile source of socially integrative forms. It has also been argued that within limits, abstract identification with one's country is built up out of concrete familial and subgroup identifications. In this context, acceptance of differences is both a means of preserving individuality and of building group loyalty, under the "unpromising conditions of mass industrial society " (Wolff, 1965, p. 17). The costs of "pure" tolerance are also real, however, and

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[1] An earlier tendency to view this country as a "melting pot," suggestive of the eventual obliteration of differences among individuals, seems to be giving away to an awareness of the benefits deriving from acceptance of diversity. This point is discussed again elsewhere in this section.

[2] This principle raises some very difficult problems with respect to the definition of legitimacy.

have been argued by philosophers such as Mill (1956) and Marcuse (1965). Marcuse describes two types of tolerance which have clearly undesirable consequences. These are "passive tolerance" of entrenched attitudes and social forms, and "active tolerance" of minority movements without regard for the effect of the tolerated ideas on society. As in our discussion of trust, the term "naive" seems appropriate to these types of tolerance; psychosocially mature persons moderate tolerance on the basis of partisan judgments about the social good.

Commentary on the model

Table 3 outlines our general model of maturity and lists in some detail the specific attributes thought relevant to adequate functioning in this society.[1] This model is neither all-inclusive nor the only one feasible; it illustrates one possible specification of the concept of psychosocial maturity. We argue that this model is reasonable: each attribute can be justified in terms of its pertinence to a general category of maturity, and each attribute can potentially be assessed.

A case could well be made for the inclusion of other attributes and perhaps the omission of some that we have included. For example, those concerned more with development than with socialization may regret the omission

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[1] The model includes variables that resemble, in varying degrees, five of Erikson's eight stages of development. In order of apparent similarity, with Erikson's terms in parenthesis, they are: identity (identity), self-reliance (autonomy and initiative), work orientation (industry), social commitment (identity), and enlightened trust (basic trust). This similarity in the statement of desirable outcomes of development is interesting in view of the quite different perspective from which we began our analysis -- a difference in perspective which accounts for our inclusion of certain interpersonal skills and societal points of view which are not present in Erikson's formulation: namely, communication skills, knowledge of major roles, openness to socio-political change, and tolerance.

of such characteristics as the capacity for interpersonal intimacy, impulse control, and capacity for play. These attributes could be included under one or another of the three major categories of the model (but so could other attributes).[1] However, all valuable attributes of human personality cannot be incorporated in a model that describes a conceptualization of psychosocial maturity. The concept of maturity becomes meaningless if stretched beyond its limits (and limitations). Put otherwise, there are many valuable aspects of human personality; not all of them are relevant to psychosocial maturity.

Several other points should be underscored. First, the attributes of maturity are not conceived as being independent of each other, either within or between categories. Second, the placement of attributes in one rather than another category could be a matter for debate. It has been indicated in several places that attributes are often relevant to more than one general dimension of maturity. Third, the model is not fixed and timeless. Of all elements, the general categories appear to us least subject to revision. The specific attributes should undergo periodic re-evaluation and, perhaps, change. As noted in the section which follows, measures of the attributes -- especially, of social attitudes -- may require the most frequent alteration.

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[1] At least two of the "missing" attributes may be indirectly tapped by variables presently included. Impulse control is required for a work orientation, self-reliance, and a sense of identity. Capacity for interpersonal intimacy is probably involved to some degree in enlightened trust (especially rational dependence) and social commitment.

Table 3

Detailed Model of Psychosocial Maturity

Individual Adequacy

- Self-reliance
  - absence of excessive need for social validation
  - sense of control
  - initiative
- Work Orientation
  - standards of competence
  - pleasure in work
  - general work skills
- Identity
  - clarity of self-concept
  - consideration of life goals
  - self-esteem
  - internalized values

Interpersonal Adequacy

- Communication Skills
  - ability to encode messages
  - ability to decode messages
  - empathy
- Enlightened Trust
  - rational dependence
  - rejection of simplistic views of human nature
  - awareness of constraints on trustworthiness
- Knowledge of Major Roles
  - role-appropriate behavior
  - management of role-conflict

Social Adequacy

- Social Commitment
  - feelings of community
  - willingness to work for social goals
  - readiness to form alliances
  - interest in long-term social goals
- Openness to Socio-political Change
  - general openness to change
  - recognition of costs of status quo
  - recognition of costs of change
- Tolerance of Individual and Cultural Differences
  - willingness to interact with people who differ from the norm
  - sensitivity to rights of people who differ from the norm
  - awareness of costs and benefits of tolerance

Assessment of Psychosocial Development

In the previous section we discussed general problems in the conceptualization of psychosocial maturity as a prelude to outlining an integrative concept of maturity. In this section we begin with general problems in the assessment of psychosocial maturity before turning to a more concrete description of a potential instrument and its use.

A. General problems in the measurement of psychosocial maturity

Cross-sectional vs. longitudinal assessment of growth

In our discussion of static vs. dynamic concepts of maturity, we claimed that a theoretical analysis of desired end-products should lead to empirical research in order to delineate steps in the attainment of these end-products. Measurement of over-time change in attributes is traditionally conceptualized as a problem requiring longitudinal research, but research design often favors the more "practical" cross-sectional study.

Cross-sectional studies of different age-groups are more practical in the sense that they obviate the necessity of waiting for individuals to age "naturally," and they eliminate the cost of locating and re-testing the same respondents at successive points in time. However, synthetic age cohorts created by cross-sectional sampling may differ in ways other than age -- especially, in the historical circumstances that have affected their development.[1] A number of studies clearly indicate that cross-sectional designs confound ontogenetic and generational change, and consequently that "true" age changes cannot be

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[1] For example, children who are presently 12 years old have been subjected to a climate of opinion concerning "women's liberation" which is different from children who are now 17. This climate includes not only the media, school instructional programs (including the opening of formerly sex-segregated courses to all), and the attitudes and practices of peers and elders; but also the historically conditioned attitudes and practices of parents , whose age if they have twelve-year-olds rather than seventeen-year-olds is likely to be younger, on the average.

inferred safely from cross-sectional studies. For example, Baltes and Nesselroade (1972) in a survey of personality development between the ages of twelve-and-one-half and sixteen-and-one half, tested the same respondents in 1970 and again in 1971. They performed both cross-sectional and longitudinal analyses of change, and found that cross-cohort or cross-sectional gradients were fallacious indicators of "true" (longitudinal) age change. Using longitudinal data (over-time data on the same respondents) as the basis for documenting change, there were many instances in which the cross-sectional gradients did not coincide with the longitudinal gradients.

Meaningful measurement of the course of psychosocial development will require over-time studies of the same individuals. Cross-sectional designs are an unacceptable short-cut for this purpose.

Age-related vs. age-invariant measures of psychosocial maturity

If psychosocial maturity is to be assessed over a wide age range, are different methods of measurement required or may the same methods be used at each point in time? This question is difficult to resolve. Ideally, we believe that the general categories and specific dimensions of maturity should remain the same, while at very different ages, the content of assessment procedures will need to vary. In other words, the strategy we favor is not to set out new criteria of maturity at each age level but to use different operational definitions of the criteria at appropriate points in the age-span.

Invariance in the dimensions of maturity has the advantage of permitting measurement of the progress of individuals toward an end-product specified by our model of maturity. It has the disadvantage of sometimes creating a situation analogous to measuring the larva's wing-spread. Thus, in children in the beginning school years, measurement of certain dispositions (e.g., openness

to socio-political change) may have to be omitted. Change in the content of measuring devices is needed for two reasons. First, test content will need to vary from one major age group to another, so that it fits the cognitive skills and life experiences of the individuals being assessed. A disadvantage of such changes in content is that they increase the number of validity studies which must be carried out. That is, each version of a scale will require validation against some external criterion of the trait in question. Clearly, the smaller the number of versions required, the better. (The validity criteria, of course, should also vary; one would not expect self-reliance to be expressed the same way at age eight as at age eighteen.) Second, change in the content of an assessment device will be necessary from time to time across all age groups. This periodic updating is required by the occurrence of social changes that might make once useful items poor indicators of a disposition.[1,2] Updating of items will also create a need for re-validation of scales.

State vs. attribute measurement

In our discussion of classical and differential views of personality structure (pp. 14-15) we suggested that a combination of both approaches would be useful in conceptualizing psychosocial maturity. This suggestion is consistent with making both nominal classifications of stages (if they exist) and ordinal measurement of attributes. At present, the formulation of psychosocial maturity is somewhat closer to the differential than to the classical view. As

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[1] The impact of social and historical forces on children's development is discussed on pp. 38-39 and on p. 42.

[2] Age-related measurement of psychosocial maturity can be discussed in another sense as well. In a preliminary effort to construct a self-report maturity scale (Greenberger et al., 1972), we selected items in part for their ability to differentiate chronologically less mature from more mature individuals: i.e., 11th graders scored significantly higher on these items than 5th graders. We now feel that age differentiation may be a misleading criterion for item selection. This is especially so in cross-sectional designs, where population differences may be responsible for differences in item endorsement. The criterion may also be misleading in the case of variables that have a non-monotonic course of growth over the age span studied.

there is no strong a priori reason to hypothesize an invariant sequence of stages of psychosocial development, we propose to begin with the measurement of the nine attributes listed in Tables 2 and 3.[1] Eventually, research on the rate and patterning of the development of these attributes over time may bring us closer to a classical view of the structure of psychosocial maturity. At that point, we might consider making nominal classification of individuals by stage supplemented by ordinal measurement of how strongly they represent that stage. (Nominal classifications alone do not typically yield distinctions among individuals at the same stage of development.)

However, invariant sequences of development are likely to be more characteristic of attitudes that depend fundamentally on psychological and intellectual differentiation (e.g., ego development [Constantinople, 1961] and moral reasoning [Kohlberg, 1964])than on those shaped by social influences. The concept of psychosocial maturity we have outlined is likely to be the product, to a considerable extent, of social forces. It deals, in fact, primarily with attitudes toward others and toward the larger society. Research described earlier (Baltes and Nesselroade, 1972) demonstrates differential cohort effects on individual development even within a short span of years. This finding indicates that the social context acts as a powerful determinant of development, and tends to undermine expectations of an immutable age (chronological) trend leading to a fixed sequence of stages.

B. An instrument to assess psychosocial maturity

If the schools are to engage in systematic assessment of psychosocial maturity, an instrument that is easy to administer is a necessity. One of

[1] At most, it seems plausible to suggest that attitudes pertinent to social adequacy (social commitment, and especially openness to socio-political change and tolerance) begin and end their development later than attitudes relevant to individual and interpersonal functioning.

the virtues of measures of academic achievement is that they meet this criterion; the teacher or other school person plays only a small role in the administration of the test and usually none in the scoring. Thus, assessment of academic achievement puts little extra burden on the schools. The most practical means for assessing psychosocial maturity is, likewise, a paper-and-pencil test: a self-report inventory of attitudes, beliefs and dispositions.

The inventory should include all nine dimensions described in Tables 2 and 3 and should yield separate scores on each dimension. Such an inventory has already been devised.[1] This scheme, of course, parallels the structure of academic achievement tests. In the case of achievement tests, total battery scores are given, but separate scores (grade equivalents, percentiles) are also formed for different areas of cognitive accomplishment. In the case of a psychosocial maturity inventory, it is questionable whether a total "maturity" score would make any sense. As with IQ or achievement, children who have the same total score may in fact have vastly different strengths and weaknesses. Individual subscale scores and a profile of scores showing the patterning of the student's scores across subscales might be more meaningful.

The pitfalls of paper-and-pencil measures of attitudes are well-known, especially the gap between stated attitudes and "actual" behavior in "real life" situations. This gap is created by such factors as the motive to present oneself in a favorable light (social desirability motivation) and by the contrary motive to present oneself as a rebel. Since no cost is incurred by erroneous self-presentations, the test-taker is not constrained from flights of fancy. These pitfalls are far less worrisome in the assessment of cognitive skills, where a "good" or a "right" answer presumably cannot be faked.

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[1] The scales are presently being refined by Greenberger et al. on a sample of 2800 children in grades 5, 8, and 11. The nature of the scale and substantive findings based on scale scores are the subject of a forthcoming report.

(Only the rebel, who wishes to fake "bad," has opportunities, but the costs of faking may be quite severe.)

A paper-and-pencil measure of psychosocial maturity will have to be buttressed by convincing validity studies. We must specify what behaviors the subscales, alone or in various combinations, predict. The degree to which social desirability motivation affects scores on these scales also must be estimated. In general, we do not view psychosocial maturity and social desirability as mutually exclusive. Insofar as the motive to present oneself in a favorable light reflects conformity to social expectations, and the content of psychosocial maturity includes socially valued dispositions, some degree of overlap between measures of psychosocial maturity and social desirability is to be expected. A high degree of overlap would be undesirable, though, since the emphasis in measures of the latter is on unrealistically favorable self-presentation or "faking good." This characteristic is absent from the concept of psychosocial maturity.[1] Finally, the relationship of some form of overall psychosocial maturity score to scores reflecting related concepts should be explored: e.g., scores on measures of "social maturity"(Gough, 1966), "competence" (Smith, 1968), "ego development" (Constantinople, 1961 ; Loevinger,1968), "ego strength" (Barron, 1963), "psychological health" (Livson and Peskin, 1967), and "optimal adjustment" (Block, 1961).[2]

C. Research uses of a psychosocial maturity scale

The major use of a psychosocial maturity inventory is to provide a criterion variable for research on the impact of various socialization experiences, including the school experience.[3] To be fully legitimate for this

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[1] Research with a scale based on an earlier model of maturity showed only modest correlations between psychosocial maturity and a measure of social desirability (Greenberger, 1972).

[2] This endeavor does not necessarily imply the construction of a total psychosocial maturity score. One could instead carry out a multivariate analysis of the association between scores on the psychosocial maturity subscales and scores on tests of related constructs.

[3] The inventory can also, of course, serve as a gauge of socialization practices within the family.

purpose, large-scale longitudinal studies of growth on the nine dimensions of psychosocial maturity should be carried out. Such studies would enable us to determine, for each dimension of maturity, where on the continuum of scores we could expect children of a particular age to be located. The range of expected scores could in turn be used as a point of reference for examining the impact of various socialization experiences on children's actual development (i.e., on their observed scores).

Aspects of the school experience that may have an impact on psychosocial development include its curricular, organizational and compositional features. The possible impact of the manifest curriculum -- what is officially taught -- need not be detailed here. Among the organizational variations that may affect one or more aspects of psychosocial maturity are (1) the degree of "openness," as opposed to traditionalism, in the structure of classroom activity -- a dimension defined mainly by the de-authoritizing of relationships and the individualization of instruction (McPartland, et al., 1972); (2) the locus of decision-making in the governance of the school (McPartland, et al., 1971); and (3) the degree of cooperativeness, contrasted with competitiveness, in the structure of academic tasks (DeVries and Edwards, 1972; DeVries and Edwards, in press). Compositional variables such as the (1) size and (2) location of the school; (3) the diversity, as opposed to uniformity, of students' family and ethnic background; and (4) the major themes of the student culture are also likely influences on psychosocial development. These organizational forms and compositional facets each entail characteristic relations among individuals and characteristic bases of interpersonal evaluation. These create a "latent curriculum" of the school which is "taught" day after day (Bloom, 1972).

Ironically, many so-called "school effects," including several mentioned above, are in fact explained by peer group influences. Peer studies of the

school have usually focused on the informal social structure of the peer group or have related demographic characteristics of peers (race, social class) to academic achievement (Coleman, 1961; Coleman et al, 1966). Very little research has attempted to assess directly the socialization by peers of attitudes and dispositions relevant to what we have termed individual, interpersonal and social adequacy or to detail the mechanisms through which peer influence is achieved.

Erikson (1950) and others, using a clinical psychoanalytic approach, have placed great emphasis on the impact of the family -- particularly that of the parents -- on the child's psychosocial development. The existence of a criterion measure like the proposed scale to assess psychosocial development makes large-scale assessment of family effects, as well as peer effects, on children's development more feasible.[1] It would be useful to determine empirically the stages of life in which children's attitudes are primarily influenced by the immediate family, and the stages in which they are influenced by other social groups. We should also investigate the extent to which various agencies of socialization -- for example, family, school, employment -- exert mutually reinforcing effects on the development of a given trait or mutually opposing (competing) effects. Finally, research should be directed toward learning which of the various components of psychosocial maturity are influenced most strongly by the different agencies of socialization.[2]

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[1] Hypotheses based on the clinical literature can be examined on samples less atypical than those usually used in clinical research.

[2] Research on family, school and peer effects on psychosocial development is now underway as part of the Schools and Maturity Program.

Conclusions

This paper started from the premise that the environment provided by the school is an increasingly important arena for socialization. The socializing influences in that arena are largely unrecognized and unmeasured, because of a preoccupation with academic outcomes of the school experience and measurement of those outcomes. We have proposed a scheme for ordering thought about non-academic outcomes of schooling. This scheme integrates theories from sociology and psychology and derives a set of desirable non-academic outcomes that reflects both the intrinsic directions of development and the extrinsic demands that society makes of individuals. The resulting construct consists of concepts that can be operationalized.

We have emphasized the importance of devising practical measures of psychosocial development and have discussed the nature and uses of such an instrument. The importance of devising a measure lies in the fact that instruments can often help to shape the direction of fields of inquiry. We described earlier the degree to which academic achievement tests dominate life in the schools; they also dominate the field of educational research. The creation of the Stanford Binet made the study of intelligence the predominant concern of differential psychologists for a long time. The appearance of measures of authoritarianism in the immediately post-war period (Adorno, et al., 1950) initiated an avalanche of studies on this topic. By the same token, the appearance of an instrument to assess psychosocial maturity might help to broaden the perspective of educational research and the goals of schools themselves.

Research on socialization and human development tends to focus in a piecemeal way on a wide variety of individual traits, attitudes and values. There are few comprehensive, coherent and generally accepted schemes which organize

such variables and guide research. Although our conceptualization of psychosocial maturity (and an instrument to assess it) leave many problems without a definitive solution, they will be useful if they generate systematic approaches to thinking about and conducting research on non-academic goals of socialization.

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